FIG. 1
PRIOR ART

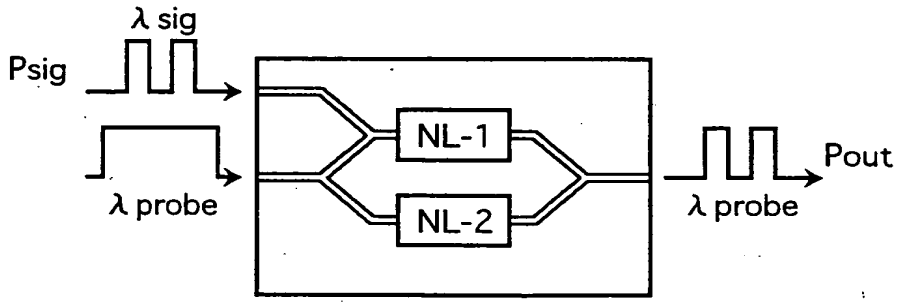


FIG. 2
PRIOR ART

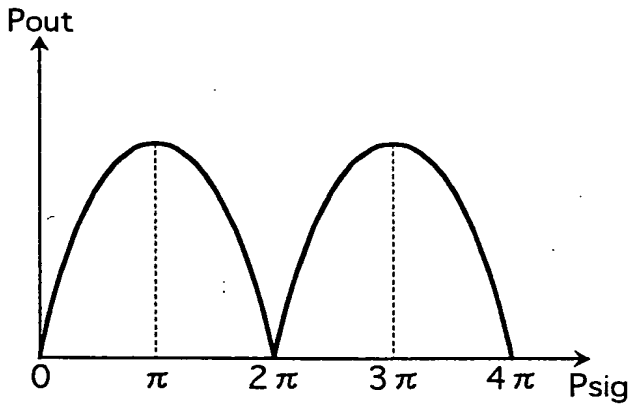


FIG. 3
PRIOR ART

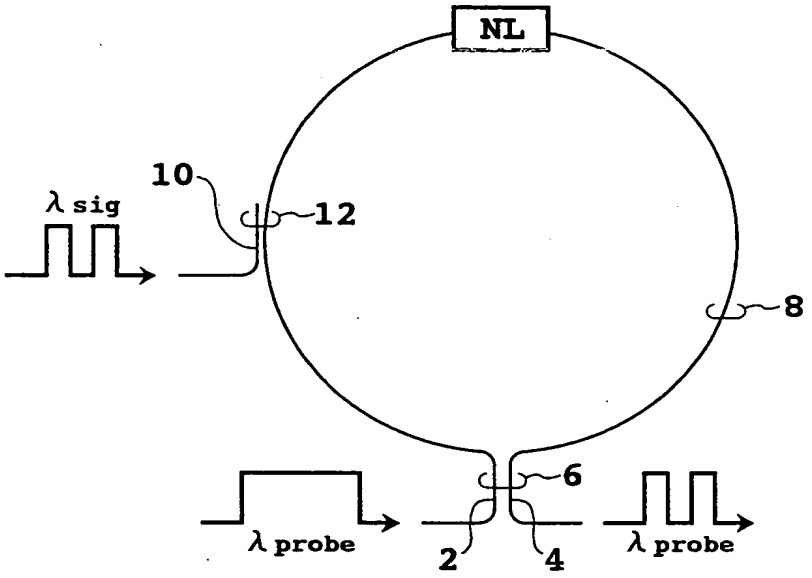


FIG. 4

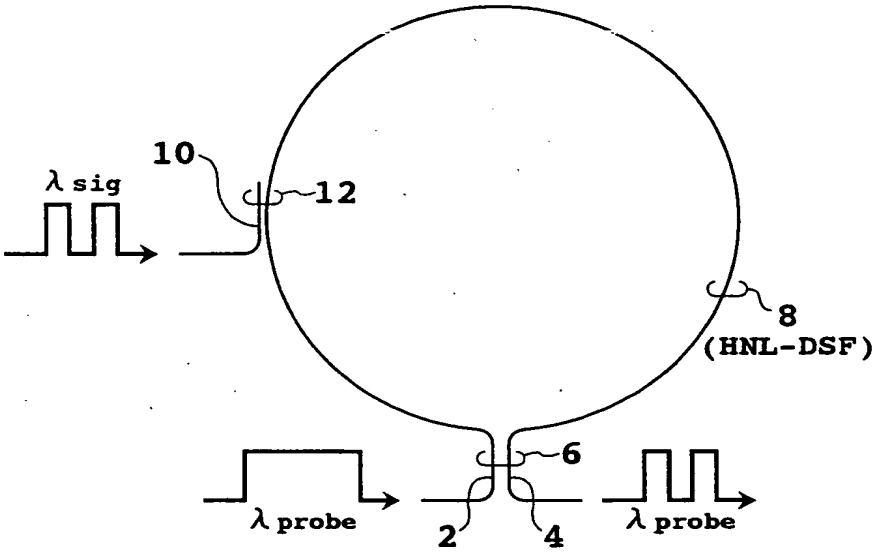


FIG. 5

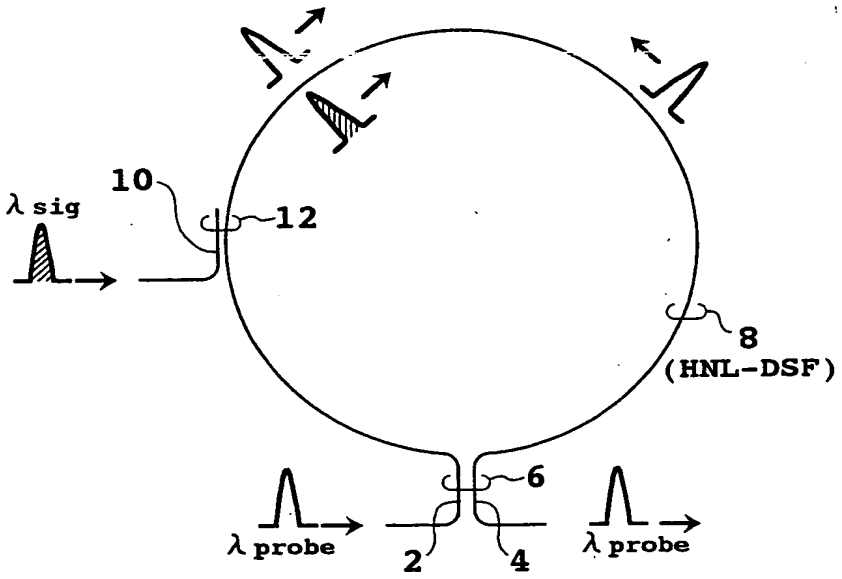


FIG. 6

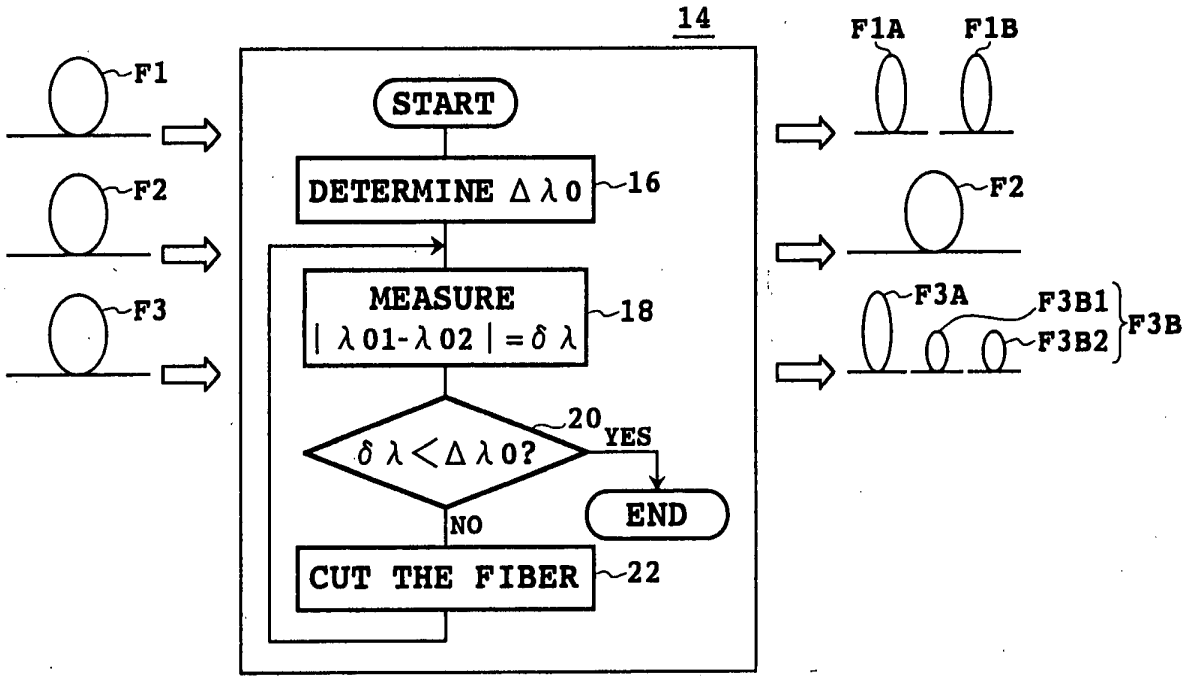

14
F1
F2
F3
START
DETERMINE Δλ0
16
MEASURE
|λ01-λ02|=δλ
18
δλ<Δλ0?
20
YES
NO
END
CUT THE FIBER
22
F1A
F1B
F2
F3A
F3B1
F3B2
F3B

FIG. 7

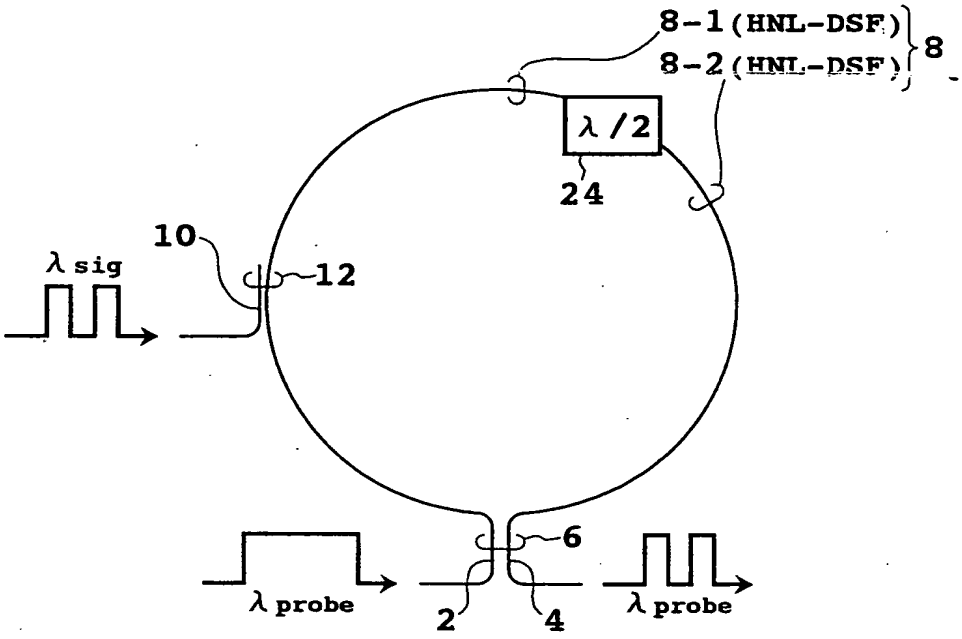


FIG. 8

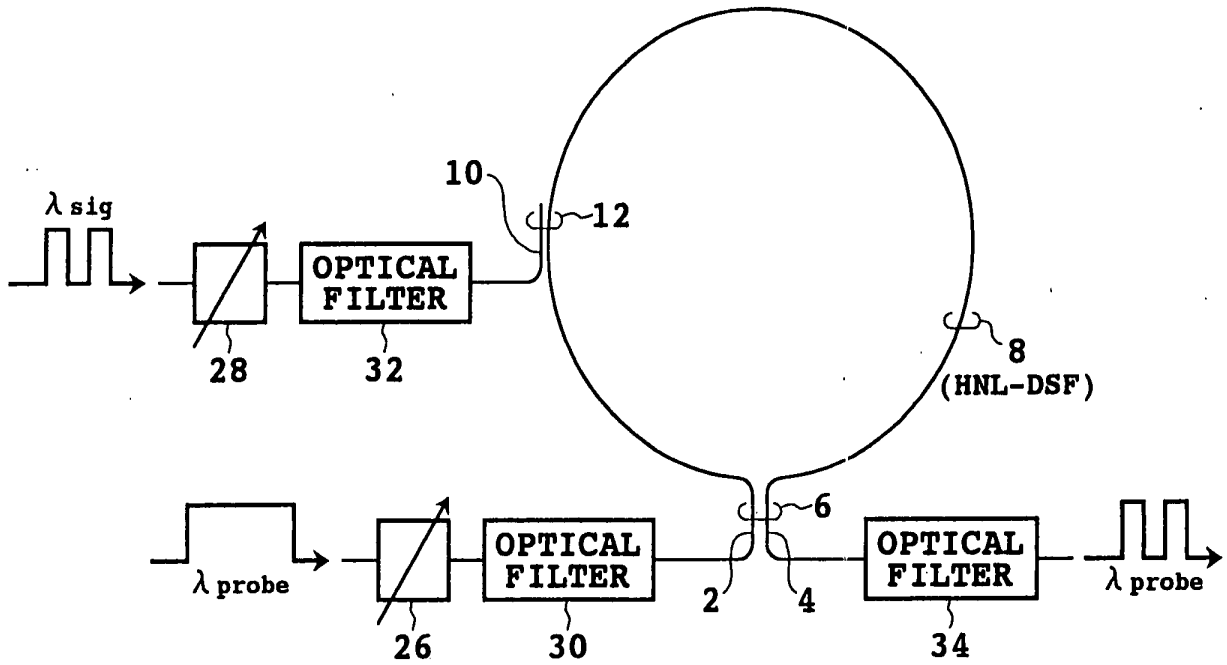

λ sig
10
12
OPTICAL FILTER
28
32
8
(HNL-DSF)
λ probe
26
OPTICAL FILTER
30
6
2
4
OPTICAL FILTER
34
λ probe

FIG. 9

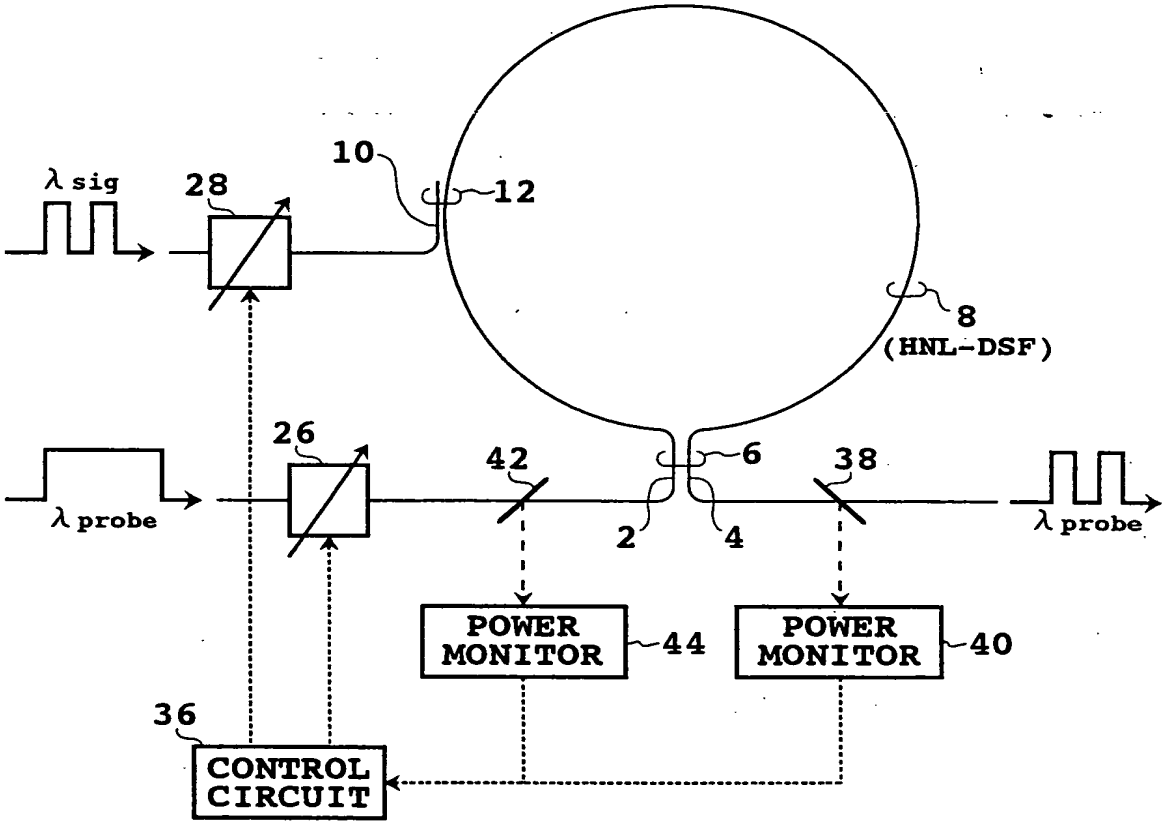

λ sig
28
10
12
8
(HNL-DSF)
26
42
6
38
λ probe
2
4
λ probe
POWER MONITOR
44
POWER MONITOR
40
36
CONTROL CIRCUIT

FIG. 10

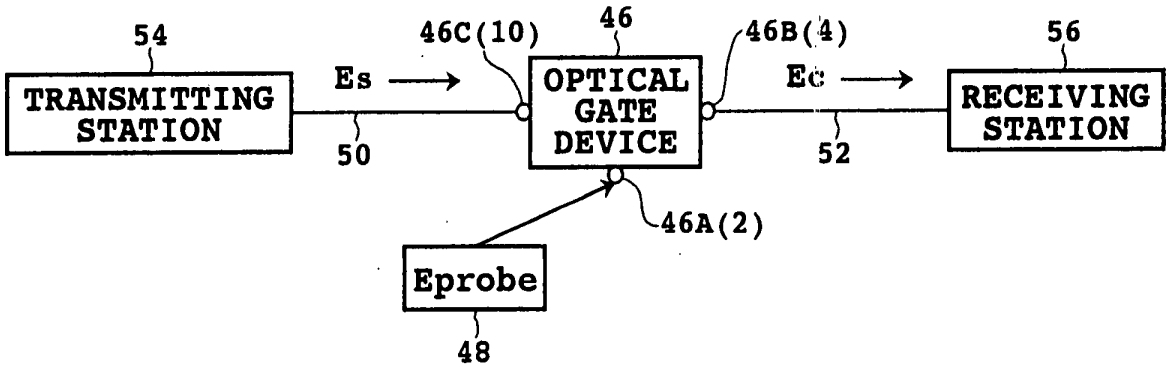
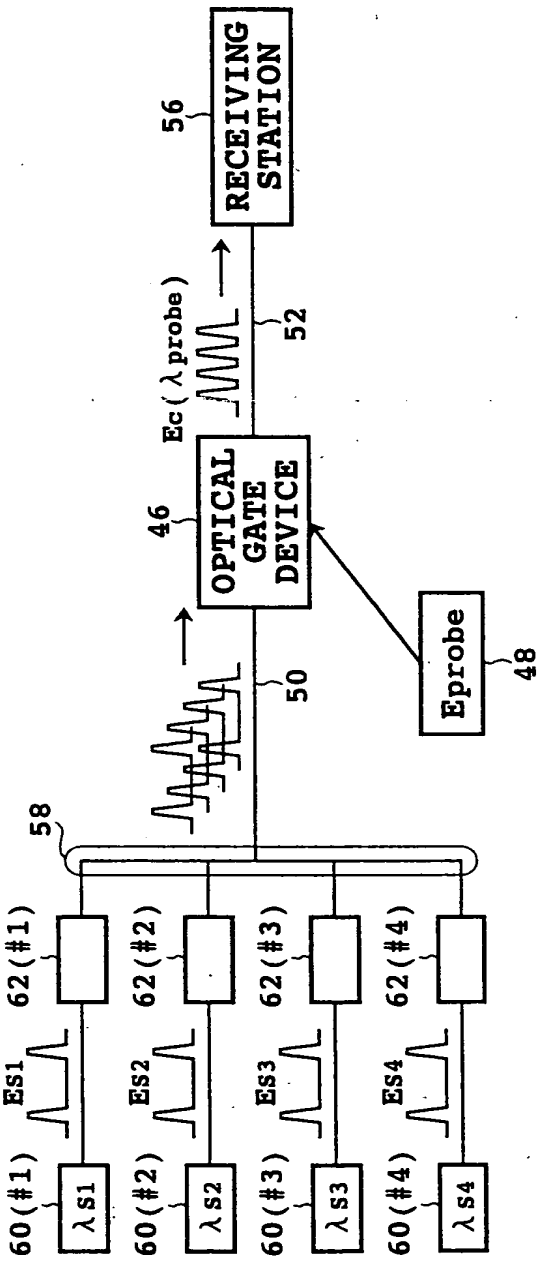

54
TRANSMITTING STATION
Es
50
46C(10)
46
OPTICAL GATE DEVICE
46B(4)
Ec
52
56
RECEIVING STATION
46A(2)
Eprobe
48

FIG. 11


RECEIVING STATION
56
Ec(λprobe)
52
OPTICAL GATE DEVICE
46
Eprobe
48
50
58
62(#1)
62(#2)
62(#3)
62(#4)
Es1
Es2
Es3
Es4
60(#1)
60(#2)
60(#3)
60(#4)
λs1
λs2
λs3
λs4

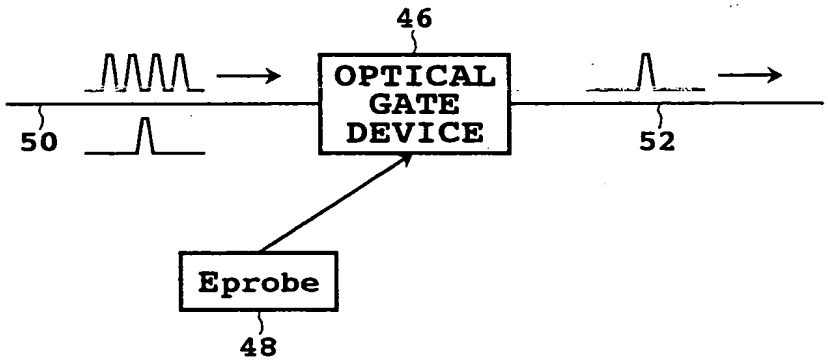



FIG. 12